

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



2004

(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 2003/104847 A3

(51) International Patent Classification⁷: H01J 37/00, 37/26, 37/252

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/IL.2003/000455

(22) International Filing Date: 1 June 2003 (01.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 150056 5 June 2002 (05.06.2002) IL

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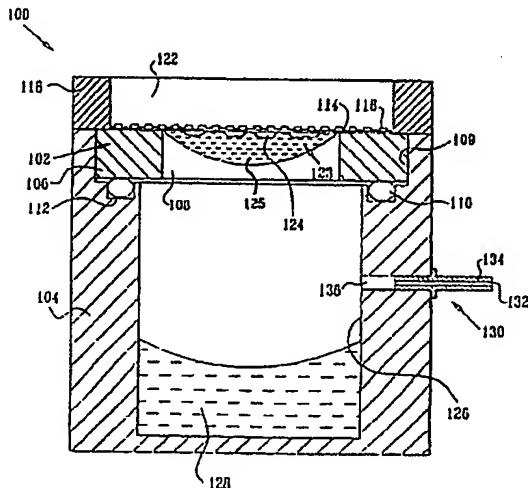
(81) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 15 April 2004

{Continued on next page}

(54) Title: LOW-PRESSURE CHAMBER FOR SCANNING ELECTRON MICROSCOPY IN A WET ENVIRONMENT



WO 2003/104847 A3

(57) Abstract: A specimen enclosure assembly (100) for use in an electron microscope and including a rigid specimen enclosure dish (102) having an aperture (122) and defining an enclosed specimen placement volume (125), an electron beam permeable, fluid impermeable, cover (114) sealing the specimen placement volume (125) at the aperture (122) from a volume outside the enclosure and a pressure controller communicating with the enclosed specimen placement volume (125) and being operative to maintain the enclosed specimen placement volume (125) at a pressure, which exceeds a vapor pressure of a liquid sample (123) in the specimen placement volume (125) and is greater than a pressure of a volume outside the enclosure, whereby a pressure differential across the cover (114) does not exceed a threshold level at which rupture of the cover (114) would occur